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The Impact of a Video Modeling Program on Developing Life Skills in Autistic Children: An Analytical Case Study

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ABSTRACT

This research aimed to develop and experiment with a program utilizing video modeling, based on Bandura's social learning theory, to enhance life skills among autistic children. Employing a single case study approach, the study sought to assess the effectiveness of the video modeling program as an independent variable in developing various life skills. The investigation relied on pre- and post-test measurements, conducted over a 6-month period within the child's home environment, and evaluated using the Childhood Autism Rating Scale. The scope of the research was limited to personal hygiene, dressing, and eating skills. Results indicated notable improvements in the child's performance across all targeted skills, with a 100% mastery achieved.

KEYWORDS: Autism, Video Modeling, Bandura's Social Learning Theory, Life Skills.

1. Introduction

Attention to raising and caring for individuals with special needs is not merely a humanitarian act but has evolved into a global commitment. One such group is individuals with autism, which remains one of the most enigmatic developmental disabilities due to the lack of specific knowledge regarding its causes. Autism is characterized by symptoms such as self-preoccupation, deficits in social skills, and deficiencies in verbal and social communication. The urgency of addressing this group is underscored by the high prevalence rate of autism, making it a significant concern. This disorder involves deviations in multiple performance areas, including attention, perception, learning, language, and communication.

A review of the theoretical history and characteristics of autism reveals a consensus among researchers that individuals with autism typically exhibit disabilities in activities of daily living and independence. Such disabilities hinder their ability to perform age-appropriate behaviors and daily life activities as expected. Consequently, one of the primary challenges for children with autism is a deficiency

in life skills, which impacts their ability to live independently and recognize and fulfill their own needs (Cardon, 2012; Cihak & Schrader, 2008; Giangreco, 2011; Thiemann & Goldstein, 2001; Reagon, Higbee, & Endicott, 2006; Johnson, at all, 2013).

Research by scholars such as Sherick J. (2004), Kurtz (2008), Youssef (2010), Abdel-Baqi (2011), and Al-Rousan et al. (2015) indicates that autistic children often show deficiencies in adaptive functioning. This term refers to the skills used to meet life's demands and achieve independence in tasks such as eating, dressing, and self-care. Such deficiencies place a burden on parents due to the child's complete dependency on them for daily tasks.

Observations from private centers dedicated to children with autism reveal significant disabilities or deficiencies in various life activities and independence. The researcher noted that while teachers and trainers understand the importance of imparting daily life skills to children with autism, they often struggle with the practical implementation of teaching these skills. Additionally, parents acknowledge the necessity of teaching life skills to their autistic children. As highlighted by Muhammad (2002), the issues of deficiencies in life activities and independence are among the most serious challenges for autistic children. These children often do not receive organized or targeted services and are usually enrolled in intellectual education schools, where they are incorrectly diagnosed as mentally disabled.

Technological advancements have expanded the concept of modeling to include the use of video in teaching skills. Video technology is an accessible and user-friendly tool that supports and enriches the educational process by modeling appropriate behavior and providing feedback. It involves using videotapes to present information in various ways, making it the technology of choice for many educators and learners due to its ease of use and minimal instruction requirements (Goldsmith & LeBlanc, 2004). Video modeling, therefore, represents a significant technological development for studying behavioral changes resulting from observation. This method involves learning through watching and imitating a video model, which is particularly beneficial for individuals with autism who often require explicit teaching methods (Spivey & Mechlin, 2016).

Video modeling offers the advantage of presenting a variety of models to facilitate and generalize skills. It can be used repeatedly without the need for consistent manual modeling efforts, ensuring consistency in the behavior being taught. Additionally, it is an economical and accessible technology that substitute teachers can utilize to provide uniform instruction. Video serves as a memory aid that children can draw on and access at any time, serving as a reference for their behavior and potentially helping to circumvent the difficulties faced by children with autism in imitation and incidental learning (Fletcher & Watson, 2014).

Given these benefits, video modeling may be an effective method for teaching and developing behaviors and skills. The current research aims to develop basic life skills for an autistic child (case study) using video modeling. This deficiency in performing basic life skills not only negatively impacts the child but also places additional burdens on family members, particularly the mother, who must invest

considerable time and effort in meeting the child's needs.

The study identified a deficit in daily life skills in the case study of an autistic child, particularly in independence skills and self-reliance. The research aims to prepare and test a video modeling program to develop some life skills for autistic children and study its results in this specific case. Therefore, the current study seeks to answer the question:

What is the effectiveness of a program using video modeling in developing some life skills for a child with autism disorder?

Importance of the Study:

This study significantly contributes to understanding the impact of a video modeling program on improving the life skills of autistic children.

1. Educational Guidance: By demonstrating the effectiveness of video modeling, this study can help direct educational efforts and improve outcomes for autistic children. It provides valuable insights for teachers, parents, and specialists in developing effective educational programs tailored to the needs of autistic children.

2. Skill Enhancement: The video modeling program aids in enhancing communication and social interaction skills. It also helps autistic children learn appropriate behaviors across various contexts, thereby improving their ability to adapt and interact successfully in society.

3. Future Research: This study lays the groundwork for future research focused on developing effective educational strategies. It promotes the comprehensive development and growth of autistic children by highlighting the benefits of innovative teaching methods like video modeling.

2. Previous Studies:

Numerous studies highlight the importance of life skills for autistic children. For instance, Tawakkol (2014) and Muhammad (2011) emphasized the need for curricula focused on teaching daily life skills to autistic individuals and providing programs that ensure they achieve a basic level of independence. Jasmine's (2009) study underscored that life skills are the biggest challenge for autistic children, with delays in acquiring these skills having negative impacts on their lives. Duncan & Bishop (2013) also noted the prevalence of deficits in daily life skills among autistic children and the critical need to address these deficits.

The study by Mays & Heflin (2011) revealed a lack of life skills among autistic children, who often rely on their parents for daily tasks, leading to feelings of inferiority and low self-esteem. Similarly, Lulu (2005) stressed the importance of focusing on life skills that are most appropriate for developmental needs, developing a list that included nutritional, health, preventive, environmental, and manual skills. Al-Qusiri (2013) highlighted that autistic children are particularly receptive to visual learning, suggesting that translating curricula into visual formats can significantly aid in information retention and learning (Ganz at all, 2011).

Akmanoglu (2015) explored the use of video modeling to teach eight different facial expressions to autistic children, finding it an effective method. Burton & Dyches (2013) investigated the effects of video modeling on the acquisition of functional mathematics skills in autistic children, concluding that it significantly improved their academic performance. Morlock et al. (2015) found video modeling to be effective in facilitating word recognition and pronunciation among autistic individuals. D. W. Moore (2013) demonstrated that video modeling could successfully teach the skill of writing a full name, with improvements maintained over time.

Stewart (2007) compared specially designed video modeling programs with commercially available ones, such as those broadcast in Sesame Street episodes, and found a preference for the specially prepared programs. This study also noted that television is a crucial source of behaviors learned through observation. Ahmed (2016) measured the effectiveness of mutual modeling and video modeling in teaching motor imitation skills to an autistic child, with the video group showing the highest retention and generalization of the skill. Qawasmeh's (2014) study demonstrated the positive effect of a video modeling training program on developing social skills in autistic children, while Abu Al-Futouh (2012) confirmed that video modeling helped develop play skills.

In summary, there is a scarcity of Arab studies on the use of video modeling for autistic children and a lack of research on teaching specific life skills such as eating with utensils, dressing, and personal hygiene. This highlights the need for further investigation in these areas to support the development of independent skills in autistic children.

Research Limitations:

This study is confined to a single case of an autistic child, diagnosed using the Childhood Autism Rating Scale and the Autism Disorder Symptoms Evaluation List. The research was conducted in the child's home environment and focused specifically on life skills related to personal hygiene, dressing, and eating. The study was implemented over a six-month period.

3. Research Methodology and Variables:

The researcher employed a single-case study approach to investigate the effectiveness of a video modeling program (independent variable) in developing specific life skills (dependent variable) for an autistic child. The study utilized pre- and post-measurements, involving the videotaping of the child's performance of selected life skills both before and after the implementation of the program. The initial videotaping served as the pre-measurement. Following the application of the video modeling program, a subsequent videotaping of the child's performance constituted the post-measurement. This design aims to assess the changes in targeted behaviors with the introduction of the intervention (video modeling). The results are interpreted using graphical representations and visual data analysis to ensure a functional relationship between the variables.

Theoretical Framework:

Modeling is predicated on the assumption that individuals can learn by observing the behaviors of others. It involves presenting a model performing a particular behavior and asking the observer to replicate that behavior. The goal is to convey information about the observed behavior with the intent of modifying the observer's behavior, introducing new behaviors, or enhancing existing ones (Abu Ghaly, 2011). There are various definitions of modeling, including learning specific behaviors by observing a person exhibiting those behaviors, modifying existing responses through actual demonstrations, imaginative scenarios, symbolic displays via film or video, verbal instructions, or participatory performances. It is considered one of the most effective educational methods due to its diverse impacts through multiple models (Abdel Rahman & Hassan, 2005). Al-Dakheel Allah (2014) suggests that modeling involves abstracting information from observations, storing it in memory, creating instructions and rules about the behavior, recalling the appropriate information, and taking the correct action at the right time.

Key characteristics of children with autism that make video modeling a natural choice as an intervention tool include:

- Selective Attention: Children with autism often exhibit interest in a limited range of stimuli, demonstrating a clear ability to maintain attention for extended periods. They also show selective attention to particular stimuli (Corbett & Abdullah, 2005). Video modeling is particularly effective in sustaining the attention of individuals with autism, helping them to focus on salient issues (Charlop & Daneshvar, 2003).

- Limited Field of Focus: Viewing a video provides a restricted visual field, allowing children to concentrate more easily on the behavior being modeled on the screen (Cardon & Wilcox, 2011). The motivating nature of videos enhances viewing and supports attention, as the video display device offers a confined field of focus that helps learners concentrate on the behavior to be learned (Maione & Mirenda, 2006).

- Preference for Visual Stimuli and Visually Cued Instruction: Students with autism process visual information more effectively than verbal information (Corbett & Abdullah, 2005). They learn better through visual means, making video modeling an optimal strategy for improving their skills (Ganz & Earles, 2007).

- Avoidance of Face-to-Face Interaction: Video modeling may be effective because it minimizes the demands for attention and language, does not require direct interaction with the trainer, and can be individualized for different students and skills. This approach can be particularly effective because it requires minimal language and attention demands, involving focus on a small spatial area (the television screen) and listening to a minimal amount of language. Additionally, video modeling can enhance motivation, as children with autism often enjoy watching videos (Delano, 2007).

The Proposed Program for Developing Life Skills for Autistic Children Using Video Modeling:

Introduction to the Proposed Programme: This program utilizes video modeling as a teaching strategy for imparting essential life skills to autistic children, delivering educational content through videos. The program was meticulously crafted by analyzing behaviors, identifying, and detailing the sequential steps necessary for acquiring targeted skills, with the overarching goal of equipping children with autism with essential life skills.

The Idea of the Proposed Program: The core concept of the program involves autistic children (cases) watching video demonstrations of various skills while seated in front of a screen. They observe and listen to detailed descriptions of each step involved in performing the skill, facilitating training and acquisition of communication, food, dressing, and personal hygiene skills. This approach aligns with learning methods suitable for individuals with verbal communication deficiencies or language deficits.

Theoretical Basis of the Program: Drawing upon behavioral theory, which emphasizes learning through observation and imitation, the program is grounded in the theory of social learning, particularly observational learning by Albert Bandura. This theory underscores the reciprocal determinism between behavior, internal determinants (such as motivations and experiences), and external (environmental) determinants.

Program Goals: A. General Goal: The overarching aim of the program is to develop essential life skills for autistic children. B. Sub-Objectives:

- Familiarizing children with body parts, clothing, and eating utensils.
- Training to acquire and enhance hygiene, eating, and dressing skills.

Stages of the Learning Process in the Program: The program incorporates the foundational principles and techniques of observational learning theory, which posits four stages in the learning process (Kagohara, 2011; McCoy, & Hermansen, 2007; Schreibman, 2000; Whitlow & Buggey, 2003; Yakubova & Taber-Doughty, 2013) :

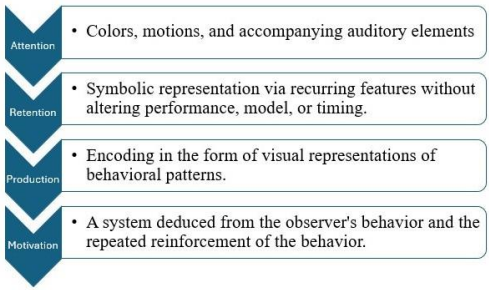

Figure 1: Stages of the learning process in the program

A) The First Stage: To facilitate learning from the model, the observer (learner) must actively pay attention to the model. Attention is paramount, as the observer cannot learn through observation without effectively attending to and processing the behavioral patterns exhibited by the model.

B) The Second Stage: Retention and storage of information hinge on the presentation of video content with features conducive to repetition and playback without alteration in performance, form, or timing. Visual images are encoded in memory, and retention is fortified through strategies like repetition, verbal notation, and conceptual symbolic representation.

C) The Third Stage: In this stage, the observer implements and reproduces motor performances by emulating the behaviors demonstrated by the model. Encoding visual images reshape cognitive structures to accommodate the acquired information. Immediate performance of observed behaviors may not be necessary; instead, retention occurs until the behavior is needed, prompting imitation and learning through observation.

D) The Fourth Stage: Motivation and reinforcement are crucial for learning to manifest visibly. The behavior exhibited by the model, or the observer's ability to replicate the behavior in a manner akin to the model, serves as motivation. Additionally, reinforcement accompanying the model's behavior tends to promote the repetition of reinforced behaviors by the observer.

Processing Method:

The processing method employed in the program requires the autistic child to engage with the sequential pattern of the skill, addressing each step consecutively. This approach enhances attention and clarity, making it the most suitable method for implementing the proposed program. Key considerations include:

1. Task Division: Divide tasks into manageable segments that are enjoyable and align with the child's interests.

2. Performance Monitoring: Regularly monitor performance to ensure consistency and progress.

3. Setting Priorities: Establish priorities among stimuli to capture the child's interest and focus effectively.

4. Engaging Skills: Design skills to be engaging and fulfilling the child's needs.

Duration of Program Application:

The proposed program spanned 26 weeks, comprising five sessions per week, with each session lasting between 60 and 45 minutes. Preceding this period was a two-week phase focused on enhancing the child's attention span through selected children's songs and simple command-following activities involving ball-playing and movement games. The program implementation schedule is outlined in Table 1.

Table 1. Duration of Program Application

Skill	Number of Videos	Number of Sessions	Number of Days	Number of Weeks
Washing hands with soap and water	3	25	25	8
Washing face with soap and water	1	20	20	4
Wearing T-shirt	5	20	20	4

Wearing pants	5	15	15	3
Wearing socks	2	10	10	2
Wearing shoes	1	10	10	2
Eating with spoon	4	15	15	3
Eating with fork	4	15	15	3
Total	25	130 sessions	130 days	weeks 26

4. Research Experience and Results:

The steps of the intervention and implementation program using video modeling were as follows:

1. Choose the skill to be learned.
2. Analyze the skill targeted for learning.
3. Prepare and select the appropriate video and voiceover for the targeted skill.
4. Show the video to the child.
5. Experimentally implement the targeted skill.
6. Collect data on the targeted skill to monitor progress and results.

Effectiveness of the Program in Training on the Skill of Washing Hands with Soap and Water: The following table shows the child's response rates regarding the skill of washing hands with soap and water:

Table 2: The Child's Response Rate (Performance) in the Skill of Washing Hands with Soap and Water

Attempts	1	2	3	4	5	6	7	8	9	10	11	12
The number of correct steps in one attempt	1	1	1	4	1	4	4	3	4	7	4	4
Percentage of correct steps per attempt	%8	%8	%8	%33	%8	%33	%33	%40	%33	%58	%33	%33
Attempts	13	14	15	16	17	18	19	20	21	22	23	24
The number of correct steps in one attempt	4	8	7	12	10	12	12	12	12	12	12	12
Percentage of correct steps per attempt	%33	%66	%58	%100	%83	%100	%100	%100	%100	%100	%100	%100

The previous results indicate that the child's performance in the entire skill stabilized from session 18 to session 24. The child mastered the skill at 100% in the post-measurement, demonstrating the ability to independently wash hands with soap and water. The following table illustrates the number of attempts to perform and master the skill in the pre- and post-measurements:

Table 3: Attempts to Perform and Master the Hand Washing Skill According to Pre- and Post-Measurements

Number of performance attempts	Mastery of the Skill After a Number of Attempts	Number of Attempts to Achieve Independent Performance with 100% Mastery	Average Performance of the Child in the Pre-Measurement	Average Performance of the Child During the Intervention Period	Average Performance of the Child in the Post-Measurement
24	16	8	%16	%44	%100

Therefore, the results indicate that the skill of washing hands with soap and water in children with autism has significantly improved using the proposed program based on the video modeling strategy. Consequently, the program proves effective in training the child (case) to proficiently wash hands with soap and water. The following figure illustrates the degree of progress during the training on this skill.

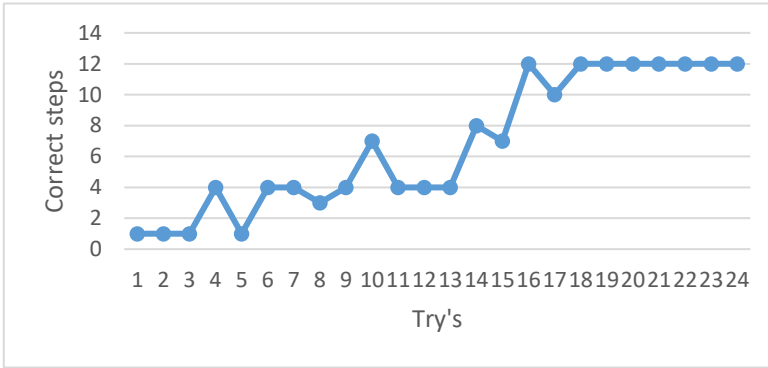

Figure 2: Advancement in Handwashing Skill Training with Soap and Water

Second: Evaluating the Program's Efficacy in Teaching Facial Cleansing Technique with Soap and Water:

The subsequent table illustrates the response rate (performance) of children in acquiring the skill of washing their face with soap and water.

Table 4: Performance Evaluation of Children in Facial Cleansing Technique with Soap and Water

Attempts	1	2	3	4	5	6	7	8	9	10	11	12
The number of correct steps in one	11	11	13	13	13	13	13	13	13	13	13	13

attempt												
Percentage of correct steps per attempt	%0	%0	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Attempts	13	14	15	16	17	18	19	20	-	-	-	-
The number of correct steps in one attempt	13	14	15	16	17	18	19	20	-	-	-	-
Percentage of correct steps per attempt	33 %	66 %	%58	100 %	%83	100 %	100 %	100 %	-	-	-	-

The preceding outcomes demonstrate the consistent performance of the child throughout sessions 3 to 20, indicating mastery of the skill at a rate of 100% in the post-assessment phase. This suggests the child's capability to independently wash their face with soap and water. The subsequent table delineates the number of attempts made to acquire and master the skill in both pre- and post-measurements.

Table 5: Attempt Progression in Acquiring and Mastering Facial Washing Skill Across Pre- and Post-Measurements

Number of performance attempts	Mastery of the Skill After a Number of Attempts	Number of Attempts to Achieve Independent Performance with 100% Mastery	Average Performance of the Child in the Pre-Measurement	Average Performance of the Child During the Intervention Period	Average Performance of the Child in the Post-Measurement
20	2	18	84%	100%	100%

Hence, the findings indicate that the deficiency in facial washing skills among children with autism spectrum disorder has notably ameliorated through the implementation of the suggested program, centered on video modeling strategies. Consequently, the program proves efficacious in instructing children with this condition on how to proficiently wash their faces with soap and water. The ensuing figure illustrates the extent of advancement observed throughout the training sessions focusing on the facial washing skill with soap and water.

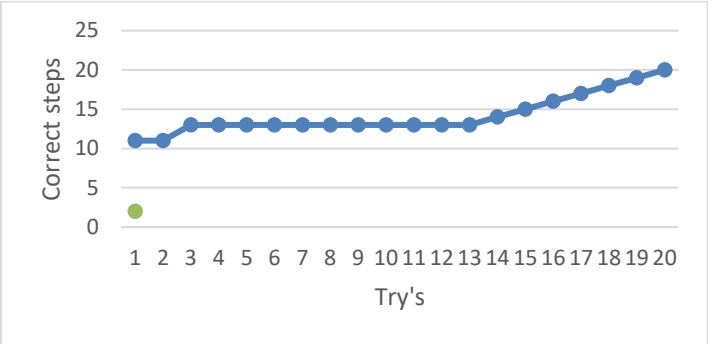

Figure 3: Progression Level in Training for Facial Washing Skill with Soap and Water

Third: Assessing Program Effectiveness in Teaching T-shirt Dressing Skill.

The subsequent table displays the child's performance rate in mastering the T-shirt dressing skill.

Table 6: Performance Evaluation of Children in T-Shirt Dressing Skill

Attempts	1	2	3	4	5	6	7	8	9	10	11	12
The number of correct steps in one attempt	0	0	0	1	6	6	6	6	6	6	6	6
Percentage of correct steps per attempt	%0	%0	%16	%100	%100	%100	%100	%100	%100	%100	%100	%100
Attempts	13	14	15	16	17	18	19	20	-	-	-	-
The number of correct steps in one attempt	6	6	6	6	6	6	6	6	-	-	-	-
Percentage of correct steps per attempt	%33	%66	%58	%100	%83	%100	%100	%100	-	-	-	-

The outcomes depicted in the preceding table indicate consistent performance by the child across all steps of the skill, observed from attempt 13 through attempt 20. This signifies mastery of the skill within the specified dimension, suggesting the child's capability to independently wear a T-shirt. The subsequent table presents the count of attempts made to execute and master the skill in both pre- and post-measurements.

Table 7: Attempt Progression in Acquiring and Mastering T-Shirt Dressing Skill Across Pre- and Post-Measurements

Number of performance attempts	Mastery of the Skill After a Number of Attempts	Number of Attempts to Achieve Independent Performance with 100% Mastery	Average Performance of the Child in the Pre-Measurement	Average Performance of the Child During the Intervention Period	Average Performance of the Child in the Post-Measurement
20	5	15	0%	90%	100%

Hence, the findings demonstrate enhancement in the child's T-shirt dressing skills through the suggested program employing video modeling strategies. Consequently, the program proves effective in training children with the condition to achieve a 100% mastery level in performing the skill. The subsequent figure illustrates the degree of progress observed during the training sessions focused on T-shirt dressing skill.

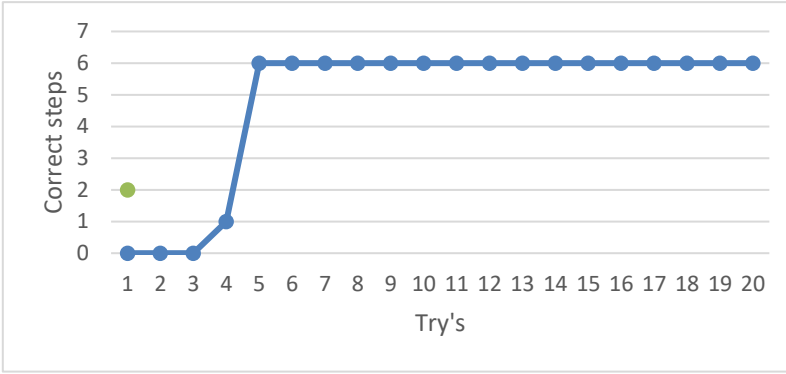

Figure 4: Progression Level in Training for T-Shirt Dressing Skill

Fourth: Assessing Program Effectiveness in Teaching Pants Wearing Skill.

The subsequent table displays the child's performance rate in mastering the pants wearing skill.

Table 8: Performance Percentage of the Child in Pants Wearing Skill

Attempts	1	2	3	4	5	6	7	8	9	10
The number of correct steps in one attempt	3	9	9	9	9	9	9	9	9	9
Percentage of correct steps per attempt	30%	100%	100%	100%	100%	100%	100%	100%	100%	100%

The outcomes depicted in the preceding table illustrate the consistency in the child's performance across all steps of the skill, observed from attempt 2 to attempt 10. The results affirm the stability of the child's performance, indicating mastery of the skill with a 100% success rate. The subsequent table presents the count of attempts made to execute and master the skill in both pre- and post-measurements.

Table 9: Attempt Progression in Acquiring and Mastering Pants Wearing Skill Across Pre- and Post-Measurements

Number of performance attempts	Mastery of the Skill After a Number of Attempts	Number of Attempts to Achieve Independent Performance with 100% Mastery	Average Performance of the Child in the Pre-Measurement	Average Performance of the Child During the Intervention Period	Average Performance of the Child in the Post-Measurement
10	1	9	33%	100%	100%

Therefore, the findings indicate that the child's deficiencies in pants-wearing skills have indeed been addressed through the implementation of the proposed program utilizing video modeling strategies. Consequently, the program proves effective in achieving a high level of proficiency in pants-wearing skills. The subsequent figure illustrates the extent of progress observed during training in the pants-wearing skill.

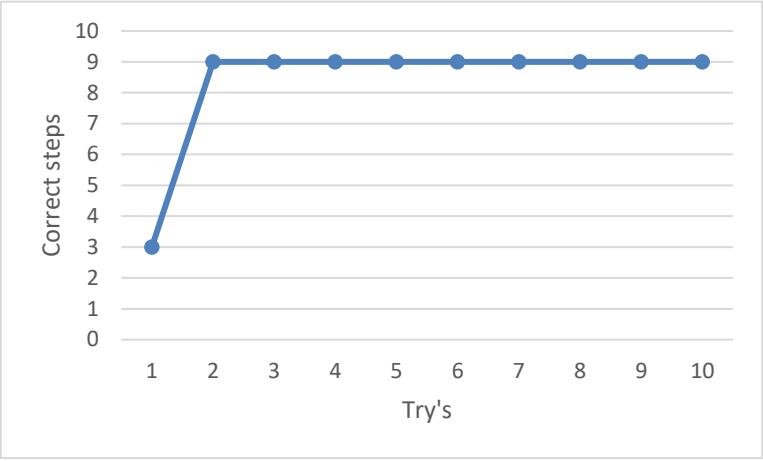

Figure 5: Progression Level in Training for Pants Wearing Skill

Fifth: Evaluating Program Efficacy in Sock Wearing Skill Training.

The following table displays the child's response rates during attempts to wear socks.

Table 10: Performance Evaluation of Children in Sock Wearing Skill

Attempts	1	2	3	4	5	6	7	8	9	10	11	12
The number of correct steps in one attempt	1	1	4	4	4	4	4	4	4	5	5	5
Percentage of correct steps per attempt	%20	%20	%80	%80	%80	%80	%80	%80	%80	%100	%100	%100

The preceding findings demonstrate the child's consistent performance across all steps of the skill, resulting in a mastery rate of 100% in the post-measurement. This mastery encompasses proficient and timely execution of all steps involved in wearing socks, tailored to the child's abilities within the autism spectrum disorder. It suggests that the child has gained the ability to independently wear socks. The subsequent table presents the attempts made to execute and master the skill in both pre- and post-measurements.

Table 11: Attempt Progression in Acquiring and Mastering Sock Wearing Skill Across Pre- and Post-Measurements

Number of performance attempts	Mastery of the Skill After a Number of Attempts	Number of Attempts to Achieve Independent Performance with 100% Mastery	Average Performance of the Child in the Pre-Measurement	Average Performance of the Child During the Intervention Period	Average Performance of the Child in the Post-Measurement
12	9	3	20%	82%	100%

Therefore, the results indicate that the deficiencies in sock-wearing skills among children with autism spectrum disorder have significantly improved through the implementation of the proposed program utilizing video modeling strategies. Consequently, the program proves effective in training the child to perform the sock-wearing skill with a very high degree of proficiency. The following figure illustrates the extent of progress observed during training in the sock-wearing skill.

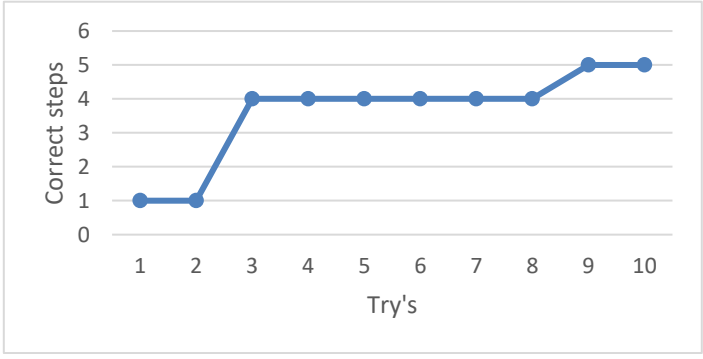

Figure 6: Progression Level in Training for Sock Wearing Skill

Sixth: Evaluating Program Effectiveness in Shoe Wearing Skill Training.

The following table illustrates the child's performance response rate during training sessions for the shoe wearing skill.

Table 12: Performance Evaluation of Children in Shoe Wearing Skill

Attempts	1	2	3	4	5
The number of correct steps in one attempt	1	1	3	6	6
Percentage of correct steps per attempt	16.5%	16.5%	50%	100%	100%

The preceding results indicate the consistency of the child's performance across all steps of the skill in the post-measurement, resulting in a mastery rate of 100%. This suggests that the child has gained the ability to independently wear shoes. The following table presents the attempts made to execute and master the skill in both pre- and post-measurements.

Table 13: Attempt Progression in Acquiring and Mastering Shoe Wearing Skill Across Pre- and Post-Measurements

Number of performance attempts	Mastery of the Skill After a Number of Attempts	Number of Attempts to Achieve Independent Performance with 100% Mastery	Average Performance of the Child in the Pre-Measurement	Average Performance of the Child During the Intervention Period	Average Performance of the Child in the Post-Measurement
5	3	2	16%	56%	100%

Therefore, the results indicate that deficiencies in shoe-wearing skills among children with autism spectrum disorder have indeed improved through the implementation of the proposed program utilizing video modeling strategies. Consequently, the program proves effective in training the child to perform the shoe-wearing skill to a very high degree of proficiency. The following figure illustrates the extent of progress observed during training in the shoe-wearing skill.

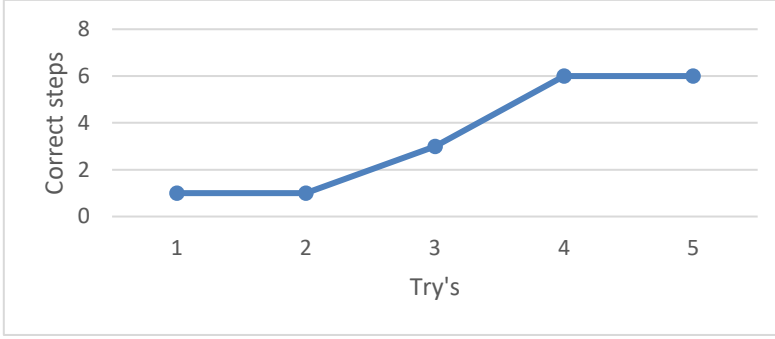

Figure 7: Progression Level in Training for Shoe Wearing Skill

Seventh: Evaluating Program Effectiveness in Spoon Feeding Skill Training.

The following table illustrates the child's performance response rate during training sessions for the spoon feeding skill.

Table 14: Performance Evaluation of Children in Spoon Feeding Skill

Attempts	1	2	3	4	5	6	7	8	9	10	11	12
The number of correct steps in one attempt	1	7	7	7	7	7	7	7	7	7	7	7
Percentage of correct steps per attempt	14%	100%	100%	100 %	100%	100%	100%	100%	100%	100%	100%	100 %

The preceding results demonstrate the consistency of the child's performance across all steps of the skill, observed from Video No. 7 to Video No. 10, indicating mastery of the skill in the post-measurement at a rate of 100%. The following table presents the attempts made to execute and master the skill in both pre- and post-measurements.

Table 15: Attempt Progression in Acquiring and Mastering Spoon Feeding Skill Across Pre- and Post-Measurements

Number of performance attempts	Mastery of the Skill After a Number of Attempts	Number of Attempts to Achieve Independent Performance with 100% Mastery	Average Performance of the Child in the Pre-Measurement	Average Performance of the Child During the Intervention Period	Average Performance of the Child in the Post-Measurement
10	1	9	14%	100%	100%

Therefore, the preceding results affirm that the child's deficiency in eating with a spoon has indeed improved through the implementation of the proposed program utilizing the video modeling strategy. Consequently, the program proves effective in training the child to eat with a spoon with a very high degree of proficiency. The following figure illustrates the extent of progress observed during training in the spoon feeding skill.

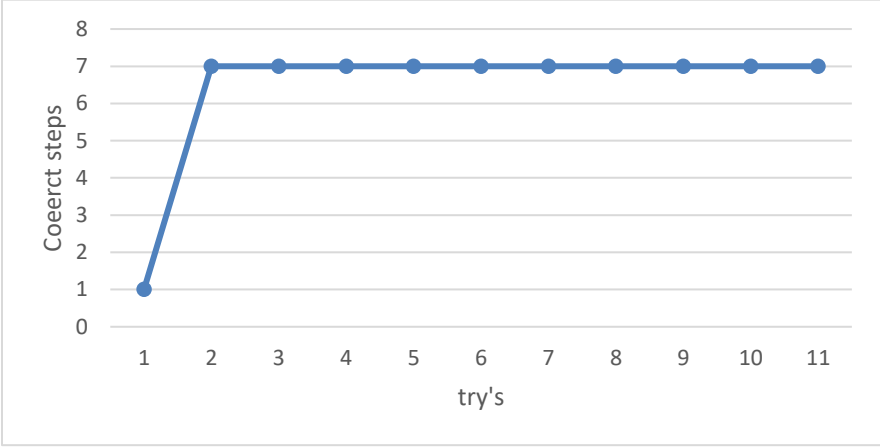

Figure 8: Progression Level in Training for Spoon Feeding Skill

Eighth: Evaluating Program Effectiveness in Fork Eating Skill Training.

The following table illustrates the child’s performance response rate during training sessions for the fork eating skill.

Table 16: Performance Evaluation of Children in Fork Utilization for Eating

Attempts	1	2	3	4	5	6	7	8	9	10
The number of correct steps in one attempt	1	2	1	5	6	6	6	6	6	6
Percentage of correct steps per attempt	16%	33%	16%	83%	100%	100%	100%	100%	100%	100%

The preceding results demonstrate the child’s consistent performance across all steps of the skill, observed from Video No. 7 to Video No. 10, achieving a success rate of

100%. Consequently, the program proves effective in training the child to perform the skill of eating with a fork with a very high degree of proficiency. The following table presents the attempts made to execute and master the skill in both pre- and post-measurements.

Table 17: Attempt Progression in Acquiring and Mastering Fork Eating Skill Across Pre- and Post-Measurements

Number of performance attempts	Mastery of the Skill After a Number of Attempts	Number of Attempts to Achieve Independent Performance with 100% Mastery	Average Performance of the Child in the Pre-Measurement	Average Performance of the Child During the Intervention Period	Average Performance of the Child in the Post-Measurement
10	4	6	24%	74%	100%

The subsequent figure illustrates the extent of progress observed during training in the fork eating skill.

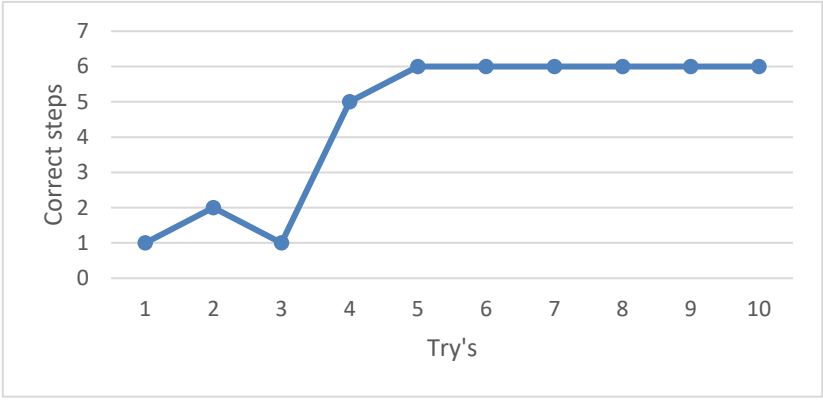

Figure 9: Progression Level in Training for Fork Eating Skill

Results Discussion:

The present study aimed to investigate the effectiveness of video modeling in developing life skills for a child with autism. Comparing the child's pre- and post-performance on these skills revealed acquisition across all targeted areas. Post-assessment imaging consistently favored improvements, indicating enhanced performance in the child with autism spectrum disorder (ASD) across the program's focused skills. The program effectively instilled independent behaviors, enabling the child to execute activities unassisted.

These findings validate the efficacy of the proposed video modeling program rooted in social learning theory. They align with prior research endorsing video modeling's utility in treating autistic children, enabling their training in daily life skills. Previous studies, such as those by Carothers & Taylor (2004), Jasmine et al. (2009), Mason et al. (2013), and Bayoumi (2008), similarly demonstrated improvements in daily life skills following training programs focused on clothing, eating, and hygiene.

The effectiveness of video modeling in developing life skills may be attributed to

several factors: A. Video modeling offers autistic children opportunities to observe life skills in natural settings, facilitating learning and subsequent independent imitation. B. It simplifies the learning process, particularly for autistic children struggling with verbal instructions, memory retention, and recall. C. Video modeling breaks down complex skills into manageable sub-skills, tailoring training to the individual abilities of autistic children. D. It can stand alone as a teaching tool, delivering immediate learning outcomes. E. The use of visually engaging videos captures the attention of autistic children more effectively than live modeling, reducing distractions and enhancing focus on the learning material. Compared to live modeling, video modeling minimizes reliance on external assistance, promoting sustained skill performance and reducing dependence on continuous guidance.

These factors collectively contribute to the effectiveness of video modeling in fostering life skill development among children with autism spectrum disorder.

The interpretation of these findings is grounded in Bandura's theory of observational learning, which underpins the video modeling strategy. Bandura identifies four key factors: attention to modeled behavior, retention of observed facts, reproduction of learned behavior, and motivation to repeat it in novel contexts. Attention is pivotal, as emphasized by Nicopoulso & Keenan (2006), highlighting its significance in successful learning through modeling. To optimize attention, the researcher diversified and repeated viewing of skills modeling videos before intervention, incorporating sound effects to enhance engagement and using modeling videos as stimulating stimuli to captivate attention. Additionally, the researcher observed the child's responsiveness to the videos and made necessary adjustments to ensure attentional focus.

Regarding memory, video modeling proves advantageous for autistic children due to their robust visual memory compared to weaker auditory and verbal memory. Recognizing this, the researcher segmented skills into discrete steps or tasks depicted in videos, treating each step as an independent skill. For instance, opening a tap served as both a step in hand-washing and a standalone skill. By breaking down skills into manageable units and linking them sequentially, memory processes and recall ability are optimized over time. Moreover, the repetitive nature of modeling videos serves as a visual stimulus, reinforcing learned behaviors over an extended period.

Motivation and reinforcement are inherent in modeling videos, naturally incentivizing and reinforcing desired behaviors. Moreover, characteristics common in autism, such as selective attention, preference for visual stimuli, repetitive behavior, and aversion to face-to-face interaction, render video models particularly beneficial compared to other behavioral methods.

5. Recommendations and Suggestions:

The present research has yielded insightful findings that warrant further investigation and practical applications. Based on the results of the current study and the researcher's observations during the program implementation with autistic children,

the following recommendations are proposed:

1. Expand the Application Scope: It is recommended to apply the current program with other categories of developmental disorders, such as the mental disability population, to assess the extent of its effectiveness across diverse groups. This comparative analysis will provide a more comprehensive understanding of the program's versatility and potential for broader implementation.

2. Engage Parents and Caregivers: It is crucial to encourage parents and caregivers of autistic children to observe video models and undergo training on the program's methods. This unified approach to teaching, training, and handling autistic children within the home environment will reinforce the continuity of interventions and emphasize the focus on developing independence. Reducing the gap between autistic children and their neurotypical peers should be a primary goal.

3. Individualize Intervention Programs: The development of customized intervention programs for each autistic child is essential. These programs should address specific negative or unacceptable skill deficits and behavioral patterns, tailoring the interventions to the unique needs and characteristics of the individual.

4. Explore Additional Outcome Measures: Further applied research should be conducted to evaluate the effectiveness of video modeling programs in developing key areas for autistic children, including communication and signaling skills, academic skills (such as reading, writing, and mathematics), as well as their inclinations and attitudes.

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